

REMARKS

In the Office Action, the Examiner rejected claims 1, 8, 10-14, 17, and 25 under 35 U.S.C. § 102(b) as being anticipated by Schwartz et al. (U.S. Patent No. 5,813,849). In addition, the Examiner rejected claims 2, 3, 22, 23, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Schwartz et al. (U.S. Patent No. 5, 813,849) in view of Sneed (U.S. Patent No. 4, 128,393). Also, the Examiner rejected claims 9 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Schwartz et al. as applied to claims 1 and 17 and in view of Altemark et al. (U.S. Patent No. 5,055,032). Applicants respectfully submit that the claims in this Continuation Application as amended herein are in condition for allowance.

I. Claims 1, 8, 10-14, 17, and 25 are not anticipated by Schwartz et al. (U.S. Patent No. 5,813,849).

A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference. Verdegaal Brothers v. Union Oil Company of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim” and all of the claims elements must be “arranged as in the claim”. Richardson v. Suzuki Motor Company, 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). The patent to Schwartz et al. (U.S. Patent No. 5,813,849) fails to satisfy these requirements.

Independent claim 1 has been amended herein to include the element “a flame stabilizer attached to and surrounding said fuel-air mixture discharge nozzle.” Independent claim 17 has been amended to include the step of “providing a flame stabilizer attached to and surrounding said fuel-air mixture discharge nozzle.” Claims 8 and 10-14 are dependent from amended claim 1 and claim 25 is dependent from claim 17. Thus, it is respectfully submitted by the Applicants

that amended claims 1 and 17 are not anticipated by Schwartz et al. (U.S. Patent No. 5,813,849). In addition, since claims 8 and 10-14 are dependent from claim 1 and claim 25 is dependent from claim 17, they are also not anticipated by Schwartz et al. (5,813,849).

II. Claims 2, 3, 22, 23, and 24 are not obvious over Schwartz et al. (U.S. Patent No. 5,813,849) in view of Sneed (U.S. Patent No. 4,128,393).

In order to satisfy a prima facie case of obviousness, the prior art must contain some teaching suggestion or incentive that would have motivated an artisan to modify the reference. See, In re Fine, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1958 (Fed. Cir. 1988). The prior art must teach or suggest all of the limitations of the claims without the slightest recourse to the teachings in the application. See, Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd., 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991). The proper test is whether “the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success.” In re Dow Chemical Co. v. American Cyanamid Co., 837 F.2d 469, 473, 5 USPQ 2d 1529, 1531-32 (Fed. Cir. 1988).

In the Office Action, the Examiner rejected claims 2, 3, 22, 23, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Schwartz et al. (U.S. Patent No. 5,813,849) in view of Sneed (U.S. Patent No. 4,128,393). However, neither of the references cited suggests or implies the instant continuously operated flare pilot or method of igniting combustible fluids utilizing a wind shield with an upstanding wall portion positioned at the front of the wind shield facing the open end of a flare stack. The claimed combination of wind shield and an upstanding wall is structurally distinct and functions differently from the prior art.

Sneed discloses a shield (spoon or shell shaped) that is placed between the flame and the source of wind gusts or drafts. The shield protects the flame in the direction of expected gusts

and at least partially from the sides, but the shield does not enclose the flame. The holes in the shield serve to allow air flow to the pilot flame for combustion, but direct the air so it does not directly impinge on the flame. The shield disclosed by Sneed is not intended to function with gusts of air from the front.

In the present invention, claims 2, 3, 22, 23, and 24 are directed to a flare pilot and methods of igniting combustible fluids wherein a fuel-air mixture discharge nozzle opens into the interior of a wind shield having an open upper end which includes an upstanding wall portion positioned at the front of the wind shield facing the open end of a flare stack. Unlike Sneed, the pilot flame of the present invention is completely shielded from direct contact with wind gusts. Further, unlike Sneed, the position of the upstanding wall in the present invention does not depend on wind direction. The upstanding wall is positioned between the pilot flame and the stack regardless of the wind gust direction. Also, downwardly facing openings in the upstanding wall of the present invention function to allow a portion of rain and wind blowing in a direction from the back to the front of the wind shield to exit the wind shield without creating a substantial back pressure within the wind shield. Compared to the holes or apertures disclosed in Sneed, the holes in the upstanding wall of the present invention provide air flow in the opposite direction and for purposes directly opposite to those of Sneed (decrease pressure rather than increase pressure).

The appropriate standard for obviousness is whether “the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success”. In re Dow Chemical Co. v. American Cyanamid Co., 837 F.2d 469, 473, 5 USPQ 2d 1529, 1531-32 (Fed. Cir. 1988). As discussed above, nothing in Sneed suggests to the skilled artisan that the flare pilot and wind shield disclosed in Schwartz et

al. should be modified to include an upstanding wall or an upstanding wall with downwardly oriented openings. Nor is there anything in Sneed to indicate that such an upstanding wall would have a reasonable likelihood of success. Just the opposite is implied. Accordingly, a prima facie case of obviousness has not been established. Specifically, claims 2 and 3 dependent from independent claim 1 and claims 22, 23 and 24 dependent from independent claim 17 are not obvious over Schwartz et al. in view of Sneed. As a result, the rejection of claims 2, 3, 22, 23, and 24 should now be withdrawn.

III. Claims 1 and 17 are not obvious in view of Schwartz et al. and Altemark et al.

In the Office Action, the Examiner rejected claims 9 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Schwartz et al. (U.S. Patent No. 5,813,849) in view of Altemark et al. (U.S. Patent No. 5,055,032). However, neither of the references cited suggests or implies the continuously operated flare pilot or method of the present invention utilizing a flame stabilizer attached to the fuel-air mixture discharge nozzle within the wind shield. Claims 9 and 26 have been canceled and independent claims 1 and 17 have been amended to call for a flame stabilizer attached to and surrounding the fuel-air mixture discharge nozzle. The flame stabilizer now called for in independent claims 1 and 17 functions to cause the fuel-air mixture discharge from the discharge nozzle to be circulated within and around the flame stabilizer whereby the fuel-air mixture begins to burn therein and the flame produced within and above the flame stabilizer 44 remains stable during pressure fluctuations within the flare pilot 26.

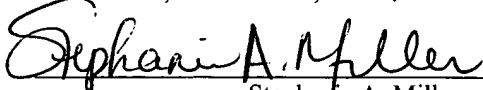
The above is contrasted with the burner described and claimed in Altemark et al. which is designed to be attached to a furnace or the like and which includes a flame retention cone having orifices formed therein. The flame retention cone has a substantially conical jacket diverging from a central inlet toward a combustion zone and functions to retain the flame within the flame

retention cone thereby reducing the formation of pollutants such as nitrogen oxides. This is contrasted with the flame stabilizer which function is to cause the flame within the stabilizer to remain stable during pressure fluctuation. It clearly would not be obvious to a person of ordinary skill in the art to utilize a flame retention cone in a pilot light which purpose is to ignite flammable fluids discharged from the open end of a flare stack. Thus, it is respectfully submitted it would not be obvious to a person of ordinary skill in the art at the time the invention was made to place a flame retention device in a continuously operating flare pilot.

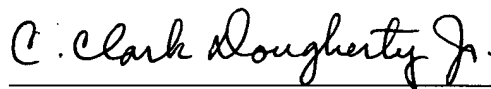
As concerns double patenting, it is respectfully submitted by the Applicants that the amendments made to the claims of this continuation application are not co-extensive in scope with the claims in the parent application.

It is submitted by the Applicants that claims 1-8 and 10-25 remaining in this application are in condition for allowance, and such allowance is respectfully requested. This is intended to be a complete response to the Office Action mailed on February 24, 2004.

I hereby certify that this correspondence is being deposited in the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Non-Fee Amendment; Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 22, 2004.


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